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SECOND ROTATION OF THE GRASS FIELD ROTATION SYSTEM

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In 1938, a 7-field grass-fallow rotation system covering an area of 240 hectares was introduced in the Kolkhoz imeni Stakhanova in Puchezh-skiy Rayon, Ivanovo Oblast. The crops were as follows: first field -- black, fertilized fallow; second field -- winter rye with mixed perennial grass; third and fourth fields -- perennial grasses (timothy and clover); fifth field -- flax; sixth field -- potatoes and summer wheat; seventh field -- summer grains.

Crop rotation was introduced in 1941. At that time, two fields were sown with perennial grasses and the rest of the fields with grain, industrial and vegetable crops, and clean fallow, as stated in the plan. In 1947 the first rotation of the plan was completed. Results of the harvest and the gross yield of various crops show that the harvest increased in areas where the crop rotation system was being used.

Manure fertilizer is now used in fallow fields and for potatoes. The amount of manure spread per hectare has increased considerably. In 1940, only 37 tons of manure were spread per hectare; in 1947, the amount was increased to 50 tons. Peat is being decomposed with manure in order to increase the supply of fertilizer.

During the course of the summer, fallow fields are kept free of weeds by repeated plowing. All spring grains are sown in well-plowed spring fallow, while the soil for potatoes is cultivated and replowed. In 1948, all spring crops were sown with select seeds from 30 April to 15 May, while during the first five days of May, the best planting period, clover was sown under the winter flax by seeding machines, crossing the other spring crops at right angles.

In 1947, upon completion of the first season of crop rotation, the harvest of grain crops was raised from 18.8 centners per hectare, or by 45 percent in comparison to the 1941 harvest. The winter wheat yield in 1947 reached 23.3 centners per hectares, while assorted flax for fiber, sown by the wide row method and using 25 kilograms of seed per hectare,

yielded 4.8 centners per hectare. From this sowing, 3 centners of flax fiber was obtained per hectare. Yields of many crops have increased, including the yield of flax seeds.

When crop rotation began in 1941, 33 centners of potatoes were gathered per hectare. In 1947, the yield was 116 centners per hectare, an increase of nearly 3.5 times. The yield of hay from perennial grasses nearly doubled: from 16.6 centners per hectare in 1941 to 31 centners per hectare in 1947.

Although the sowing area of grain crops decreased from 100 hectares at the beginning of the crop rotation, to 93 hectares at the end, the gross yield of grain in 1947 was 35 percent greater than in 1941. The gross yield of potatoes increased 3.6 times (from 666 centners in 1941 to 2443 centners in 1947) while the grain yield increased 1.5 times (from 1463 to 2124 centners).

The kolkhoz has created a stable feed base for livestock raising. This has made it possible to increase considerably the total head of cattle: the number of cattle 2.5 times, dairy cows 3 times, sheep 2 times, and hogs 1½ times.

Each year, the kolkhoz completes all deliveries to the state ahead of schedule and guarantees a high rate of pay per working day (trudoden) to kolkhoz workers. In 1947, upon completing the first year of the crop rotation system, kolkhoz workers received per working day: 2.77 kilograms of grain, 4 kilograms of potatoes and vegetables, 1 kilogram of hay, and 7 rubles, 72 kopeks in cash.

The kolkhoz still has considerable unused land reserves for further increasing the harvest and gross yield of agricultural products. Since the soil of the kolkhoz is excessively acid, this land must first be limed. The liming will increase considerably both the grain and grass yields. The increase of feed due to feed crop rotation will make possible a further growth in livestock productivity.

The utilization of all these and other reserves will aid the kolkhoz in further increasing soil cultivation and livestock raising.

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